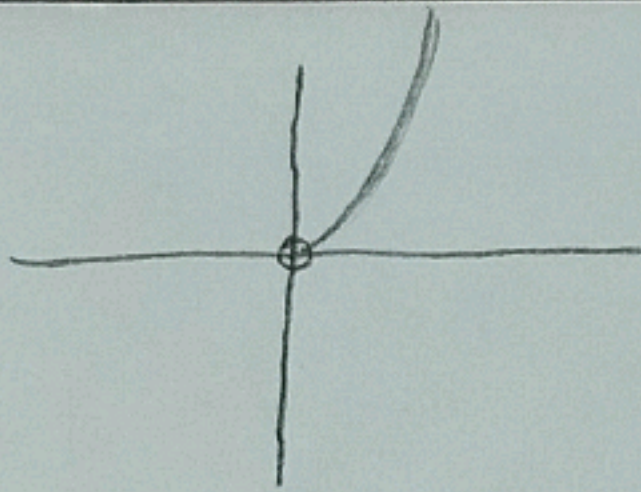


$$a^{\log_r a} \Rightarrow a^{\frac{\log_r a}{r}} \Rightarrow a^r$$

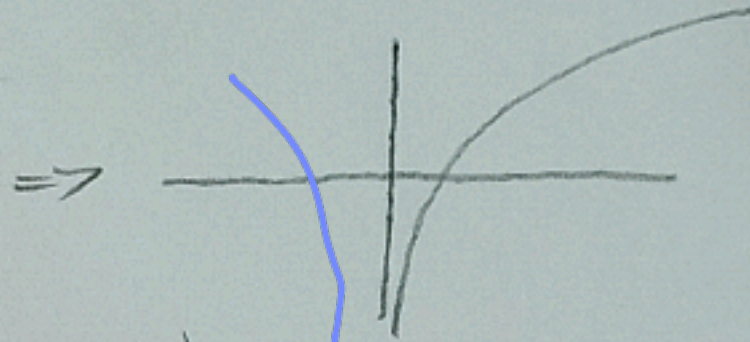
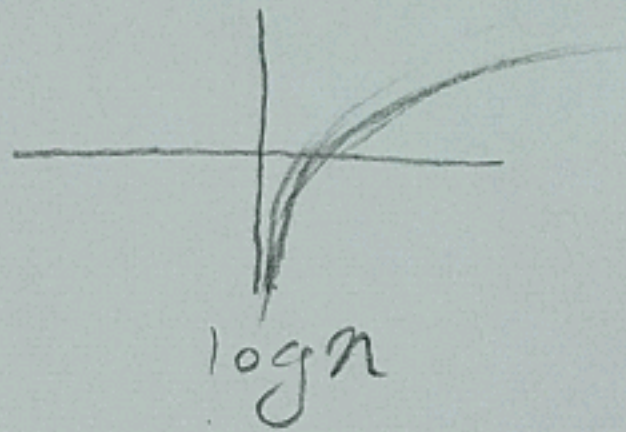
$a > 0$



1, 0

$$\log a^r \Rightarrow r \log a$$

$$D = \mathbb{R} - \{0\}$$



$r \log a$
سبب ۲ ضرب

$$f(n) = -r + \left(\frac{1}{r}\right)^{a+b}$$

$$v = n^r - n$$

$$f(r) \Rightarrow -r + \left(\frac{1}{r}\right)^{-r} = -r + 1$$

$$-r + \left(\frac{1}{r}\right)^{a+b} = -r + 1$$

$$\left(\frac{1}{r}\right)^{a+b} = 1$$

$$a+b = 0$$

$$a = -b$$

$$a = 1 \Rightarrow b = -1$$

$$b = 0$$

$$\left(\frac{1}{q}\right)^h = \frac{1}{q} \Rightarrow \log \frac{1}{q}$$

$$\Rightarrow h = \log \frac{1}{q}$$

$$-\log \frac{1}{q} \Rightarrow -\frac{1}{h} = \log \frac{1}{q}$$

$$\frac{\frac{1}{q}}{\frac{1}{q}} = \frac{1}{q}$$

$$\frac{\frac{1}{q}}{\frac{1}{q}} = \frac{1}{q}$$

$$\log \frac{1}{q} = \frac{\log 1}{\log q}$$

$$\log 1 = 0$$

$$\log q = \log q$$

$$\frac{0}{\log q} = 0$$

$$-\frac{1}{h} = -\frac{1}{q} \Rightarrow h = q$$

$$h = \frac{1}{q} \times 100 = \frac{100}{q} \text{ min}$$

$$\left(\frac{v}{\lambda}\right)^w = \frac{1}{v} \Rightarrow \log \frac{v}{\lambda}$$

$$w = \log \frac{1}{v}$$

$$w = \lambda \Rightarrow \lambda \times v = \dots$$

$$1 \dots \Rightarrow \frac{a}{1} \Rightarrow \left(\frac{a}{1}\right)^d = \frac{1}{2}$$

$$d = -\log \frac{1}{2}$$

$$-\log \frac{v}{\lambda} \Rightarrow -\frac{1}{w} = \log \frac{v}{\lambda}$$

$$\frac{1}{w} = \log \frac{v}{\lambda}$$

$$\frac{1}{\lambda} < \frac{1}{\lambda} \dots$$

$$\frac{\log \frac{v}{\lambda}}{\log v} = \frac{1}{\lambda}$$

$$\frac{1}{d} = \log \frac{1}{2} \Rightarrow \log \frac{1}{2}$$

$$-\log \frac{1}{2} = \log 2$$

$$\frac{1}{d} = \log 2$$

$$\Rightarrow d = \frac{1}{\log 2}$$

$$\log \frac{1}{2} = \frac{\log 1}{\log 2}$$

$$\frac{0}{\log 2} = 0$$

$$\log 2 = \log 2$$

$$\frac{0}{\log 2} = 0$$

19, 5

(a+c)b = r v = 1 - log_c(a-c-b) c = 1/r
b+c = -r/y y = 1 - log_c(-b) b = -r

1/c + c = -r/y log_c(-b) = -1 => 1/c = -b

c^y - 1 = -r/y * c => c^y + r/y * c - 1 = 0

(1 + r/y * c) - r = -r (c-1)(c+r) = 1 => 1/c = -r

1 - log_{1/r}(-r-b) = 0
1 = log_{1/r}(-r/y * r)
1/r = -r/y * a + r
-r/y = -r/a => a = 1

1 + c x r^{a+b} = f(a) 1 + c x r^{a+b} = 0 r^{a+b} = -1/c

f(-1) x + c x r^a = r/y
b = 1 c x r^a = -1/r

1 + c x r^a x r^a => 1/a

1 + c x r^a x r^b = -1
-r^{-1} x r^b = -r^0
r^{-1+b} = r^0
-1+b = 0
b = 1

v = c + log_a(a+b) a/b

c + log_a b = r a^{(r-c)} = b a^r x a^{-c} = b

c + log_a r, (a+b) = r a^{-c} = r, (a+b)

-1 x a^c / a^r x a^{-c} = -r/a

a^{-c} = r, (a+b) + (a^r x a^{-c}) => a^{-c} - (a^r x a^{-c}) = r, (a+b)

a^{-c} (1 - a^r) = r, (a+b)
-1 x a^{-c} = a

log_f(|a^r - r| - a) > 0

|a^r - r| > a a^r - r > a => a^r - a - r (a+1)(a-r)
a^r - r < -a => a^r + a - r (a-1)(a-r)

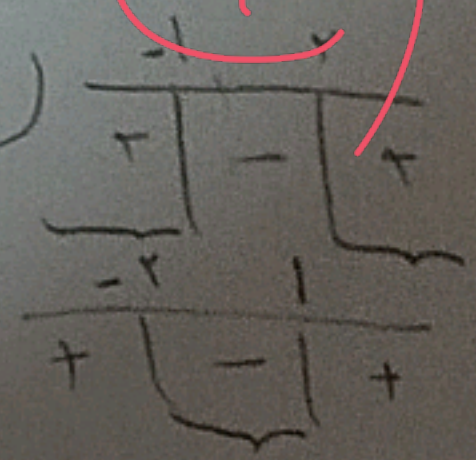
1, 10

(-inf, -1) U (-1, 1) U (r, inf)

f(x) = r + r^{b-a} g(a) = -a^r - r a + 1

f^{-1}(1) = 1 r b - a = 1 b = r a = 1

r b - a = 1 r + r b + a = 1



5